ABSTRACT

An ice cream machine for cooling liquid ice cream into frozen ice cream includes an evaporator having a cylindrical cooling tank and an auxiliary tank. The auxiliary tank ensures that the cylindrical cooling tank is flooded with liquid refrigerant during normal operation. The flooding of the cylindrical cooling tank provides more efficient and even cooling in an interior cooling chamber. The more efficient cooling allows the ice cream machine to utilize a smaller compressor, thereby reducing the cost and energy consumption of the ice cream machine. The auxiliary tank can be a coil of tubing or a cylindrical container positioned above the cylindrical cooling tank.